

Grate Inlet in Lanscaped Areas



NOTE:
1. TOP BARS ARE HORIZONTAL
REINFORCEMENT WITH MORE THAN 12"
OF CONCRETE CAST BELOW THE
REINFORCEMENT.

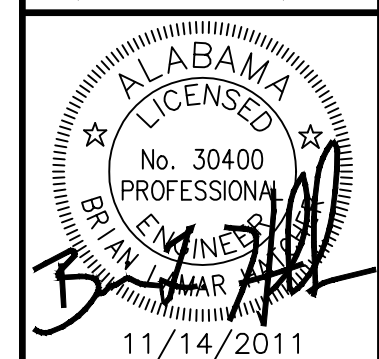


STORM LINE B AND STORM LINE A-1 CULVERT CROSS SECTION

LBYP Project Number
302-10-002A

LBYP, Inc.
305 Church Street SW
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Fax (256) 533-1744

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DETAILS

REDSTONE GATEWAY - PACKAGE 1E

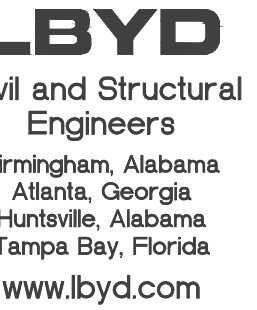
RIDEOUT ROAD INTERIM IMPROVEMENTS

CITY OF HUNTSVILLE

HUNTSVILLE, ALABAMA

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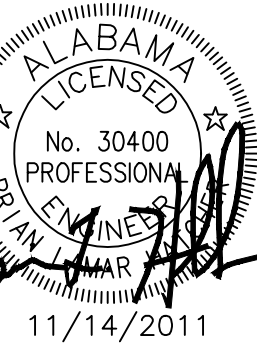
C12.0



Project Number
302-10-002A

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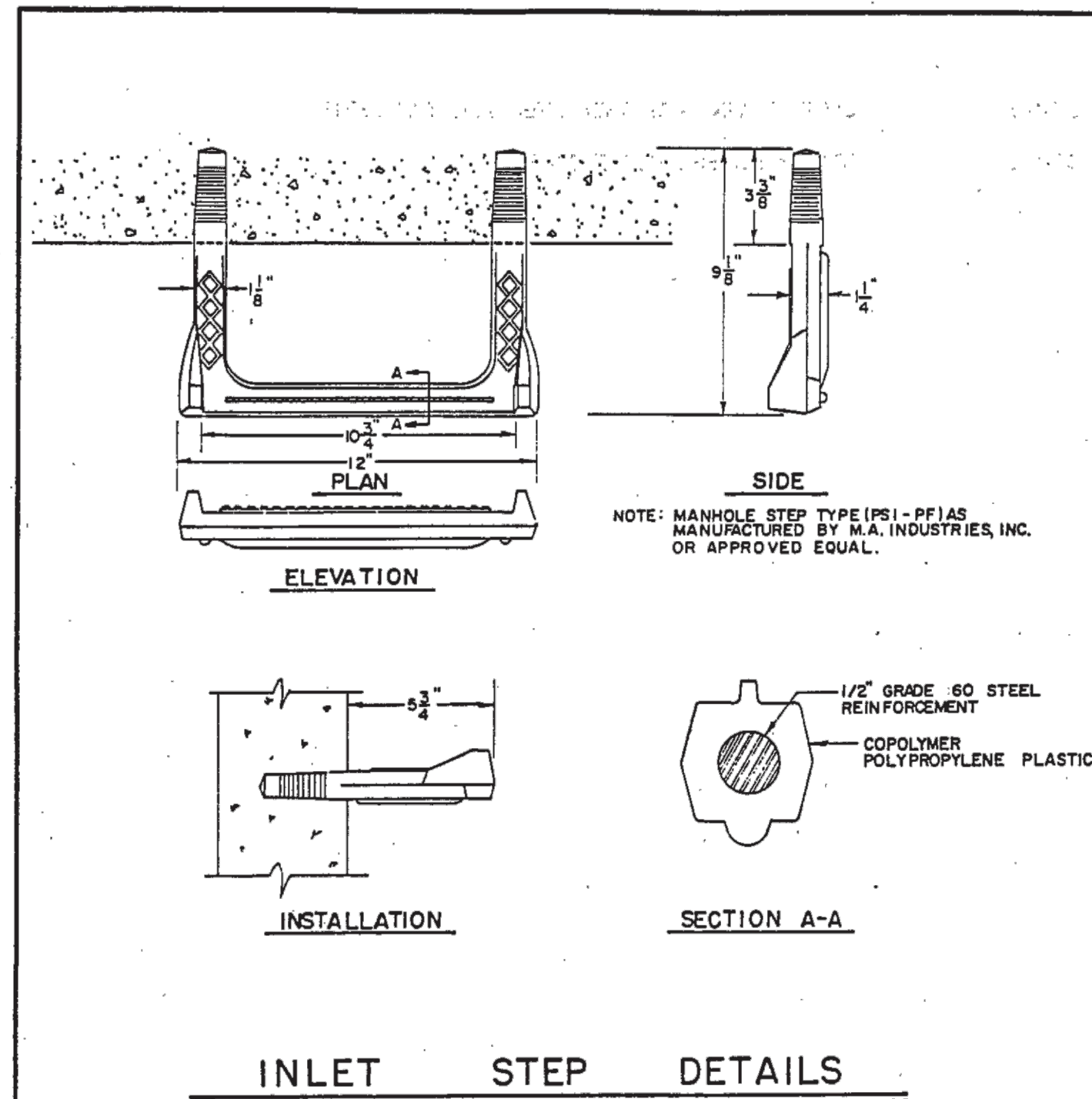
MUNTSVILLE
The Star of Alabama

REDSTONE GATEWAY - PACKAGE 1E
RIDEOUT ROAD INTERIM IMPROVEMENTS
CITY OF HUNTSVILLE
HUNTSVILLE, ALABAMA

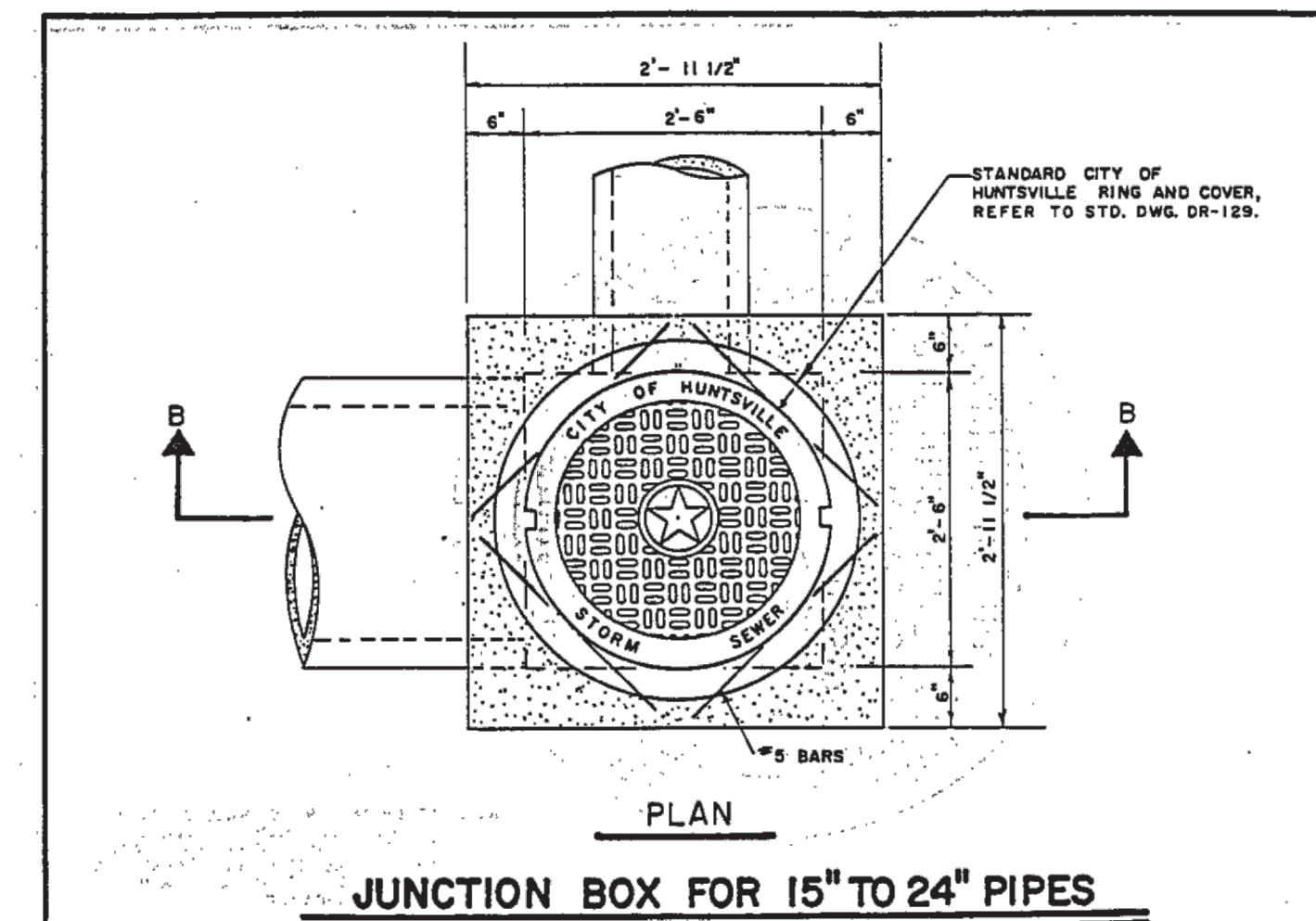
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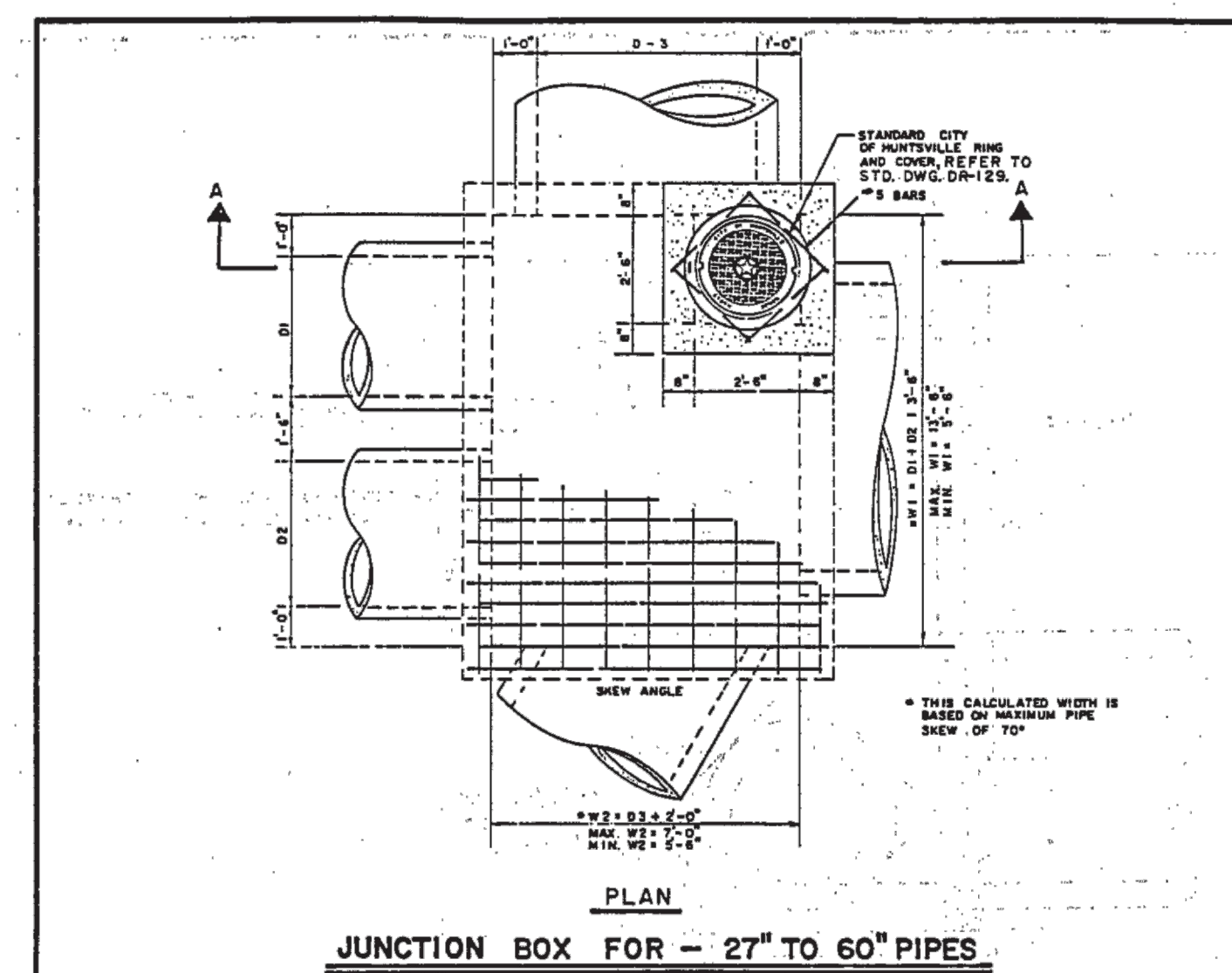
REVISIONS			CITY OF HUNTSVILLE	
DESCRIPTION	NAME	DATE	STANDARD LADDER BAR DETAIL	
DIRECTOR		DATE	ENGINEER OF PUBLIC WORKS CITY OF HUNTSVILLE, ALABAMA	DR-100 DRAWING NO.



- NOTES :

- | | | | |
|----|---------------------------------------------------------------------------------------------|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. | MIN. SIZE OF JUNCTION BOX IS 2'-0" x 2'-6" | 6. | ALL CONCRETE SHALL BE CLASS "A" AND SHALL DEVELOP A MINIMUM COMPRESSION STRENGTH OF 4000 PSI IN 28 DAYS. |
| 2. | MAX. SIZE OF JUNCTION BOX IS 7'-0" (W) x 13'-6" (H) FOR 27" TO 80" PIPES. | 7. | REINFORCING SHALL BE INTERMEDIATE GRADE DEFORMED BARS AND SHALL CONFORM TO THE REQUIREMENTS OF THE AISC SPECIFICATIONS FOR BILLET STEEL CONCRETE REINFORCEMENT BARS, ASTM A-615 AND DEFORMATIONS CONFORMING TO ASTM A-305. |
| 3. | MAX. SIZE OF JUNCTION BOX IS 2'-0" x 2'-6" FOR 15" TO 24" PIPES. | 8. | STEPS ARE REQUIRED ON ALL JUNCTION BOXES WHEN DIMENSION FROM BOTTOM SLAB FLOW LINE TO TOP OF TOP SLAB IS GREATER THAN 10'-0". |
| 4. | MAX. HEIGHT OF A JUNCTION BOX IS AS SHOWN. | 9. | |
| 5. | JUNCTION BOXES GREATER THAN 7'-0" x 15'-6" 10'-0" SHALL BE A SPECIAL DESIGNED JUNCTION BOX. | 10. | |

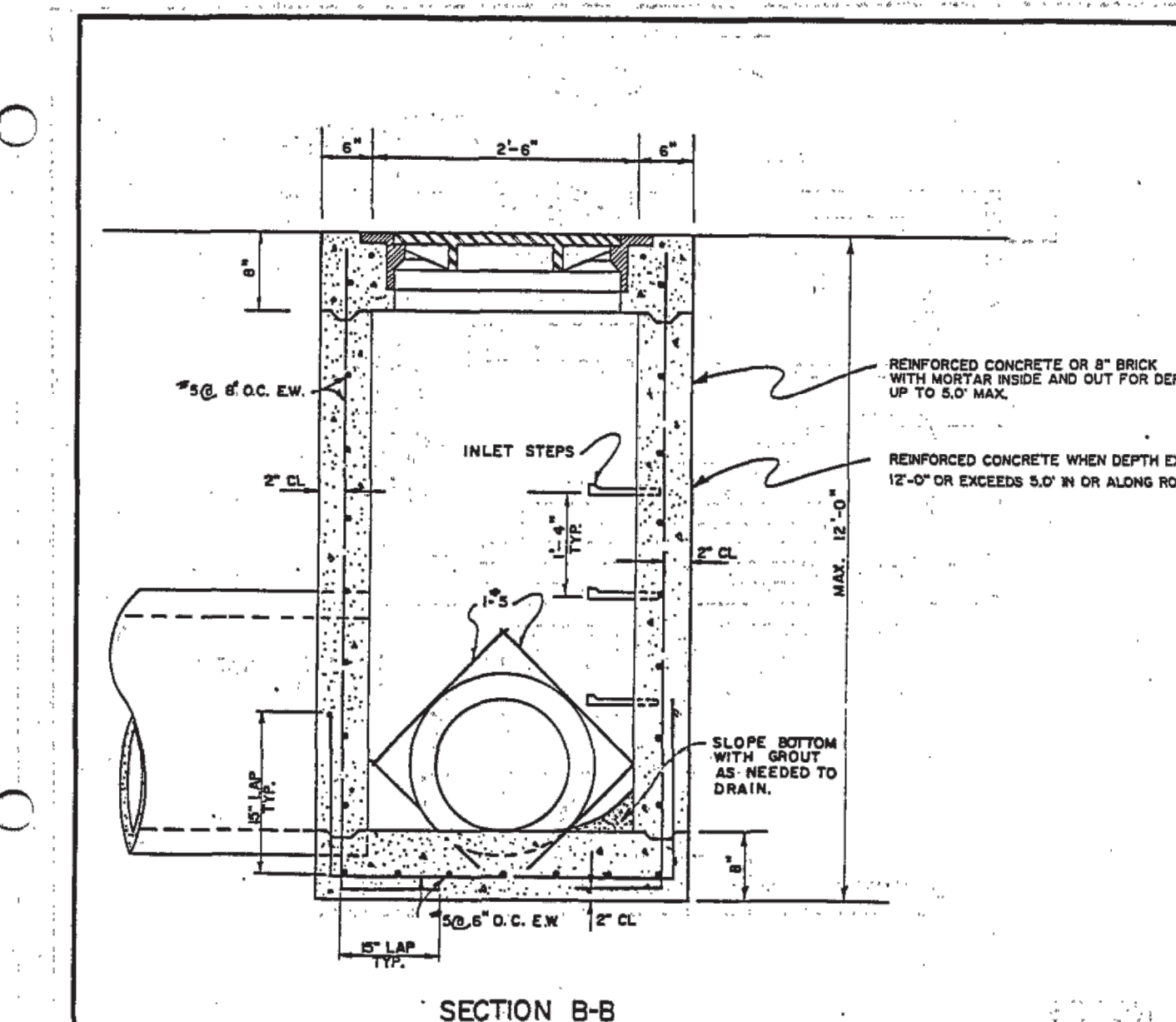
REVISIONS			CITY OF HUNTSVILLE	
DESCRIPTION	NAME	DATE	JUNCTION BOX FOR 15" TO 24" PIPE TRAFFIC TYPE	
DIRECTOR		DATE	ENGINEER OF PUBLIC WORKS CITY OF HUNTSVILLE, ALABAMA	
			DR-140 DRAWING NO.	



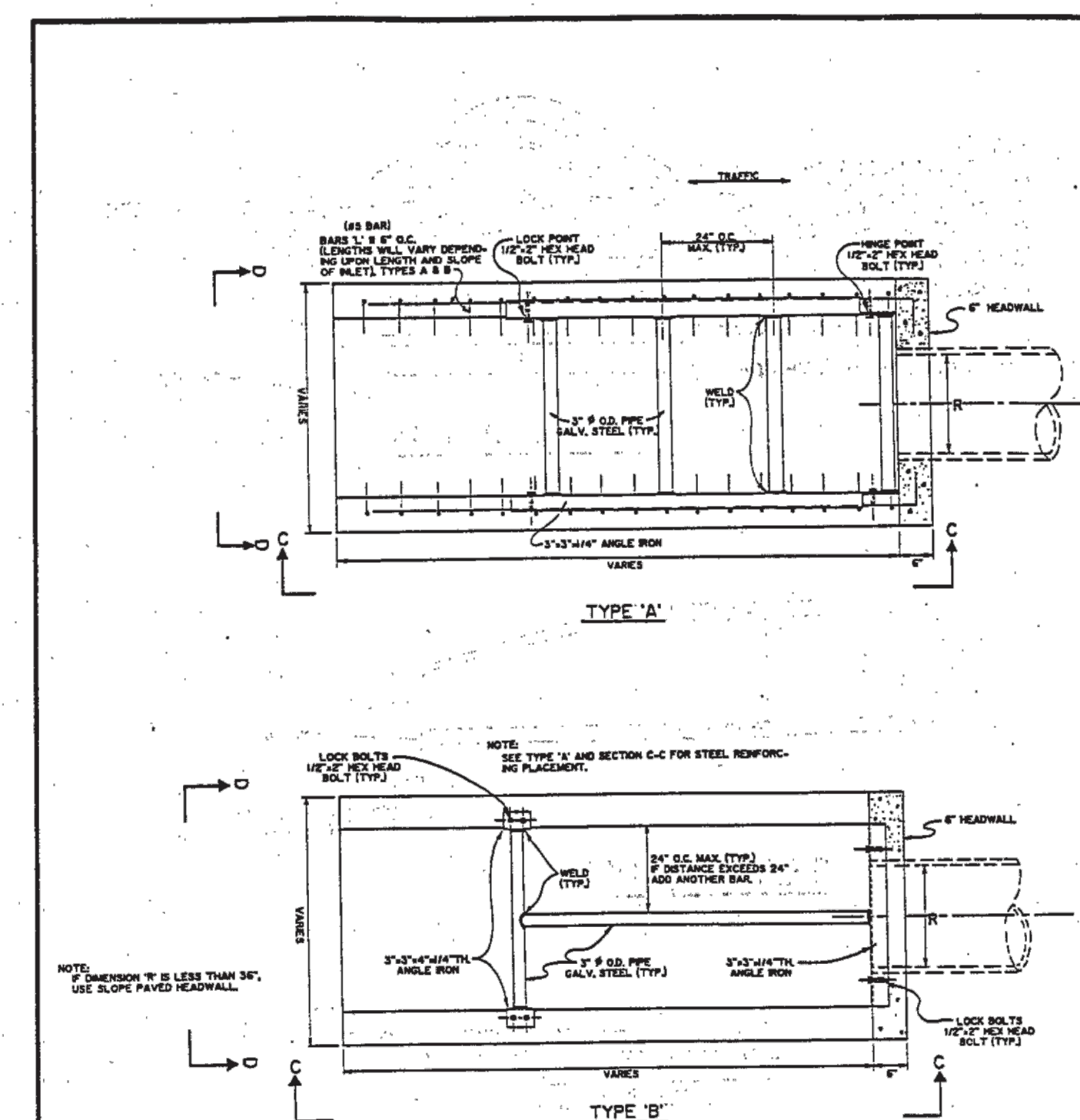
- NOTES :

- | | | | |
|----|----------------------------------------------------------------------------------------------|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. | MIN. SIZE OF JUNCTION BOX IS 2'-0" x 2'-6" | 4. | ALL CONCRETE SHALL BE CLASS "A" AND SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI IN 28 DAYS. |
| 2. | MAX. SIZE OF A JUNCTION BOX IS 7'-6" (W2) x 13'-6" (W1) FOR 27" TO 60" PIPES. | 5. | REINFORCING SHALL BE INTERMEDIATE GRADE DEFORMED BARS AND SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR BILLET STEEL CONCRETE REINFORCEMENT BARS, ASTM A-63 AND DEFORMATIONS CONFORMING TO ASTM A-955. |
| 3. | MAX. HEIGHT OF A JUNCTION BOX IS AS SHOWN. | 6. | STEPS ARE REQUIRED ON ALL JUNCTION BOXES WHEN DIMENSION FROM BOTTOM SLAB FLOW LINE TO TOP OF TOP COVER EXCEEDS 4'-0". |
| 7. | JUNCTION BOXES GREATER THAN 7'-0" x 15'-6" x 2'-6" SHALL BE A SPECIAL DESIGNED JUNCTION BOX. | | |

REVISIONS			CITY OF HUNTSVILLE
DESCRIPTION	NAME	DATE	JUNCTION BOX FOR-27"TO 60" PIPE TRAFFIC TYPE
DIRECTOR	DATE		ENGINEER OF PUBLIC WORKS CITY OF HUNTSVILLE, ALABAMA
			DR - 141 DRAWING N

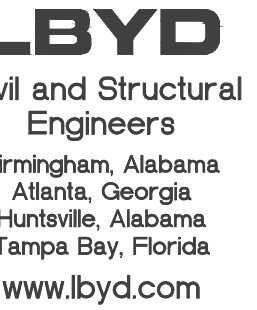


REVISIONS			CITY OF HUNTSVILLE
DESCRIPTION	NAME	DATE	
			JUNCTION BOX FOR 15" TO 24" PIPE
			TRAFFIC TYPE
DIRECTOR	DATE	ENGINEER OF PUBLIC WORKS CITY OF HUNTSVILLE, ALABAMA	
		DRAWING	



REVISIONS			CITY OF HUNTSVILLE	
DESCRIPTION	NAME	DATE	ROADWAY PIPE SAFETY GRATE DET	
			36" PIPE OR GREATER	
DIRECTOR		DATE	ENGINEER OF PUBLIC WORKS CITY OF HUNTSVILLE, ALABAMA	
			DRAWING	

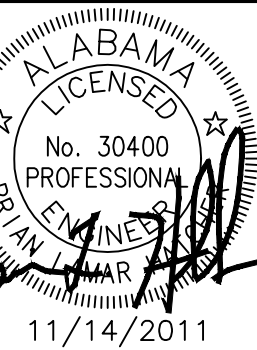
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PUBLIC IMPROVEMENTS DATED MAY 1991 FOR ADDITIONAL
INFORMATION.



Project Number
302-10-002A

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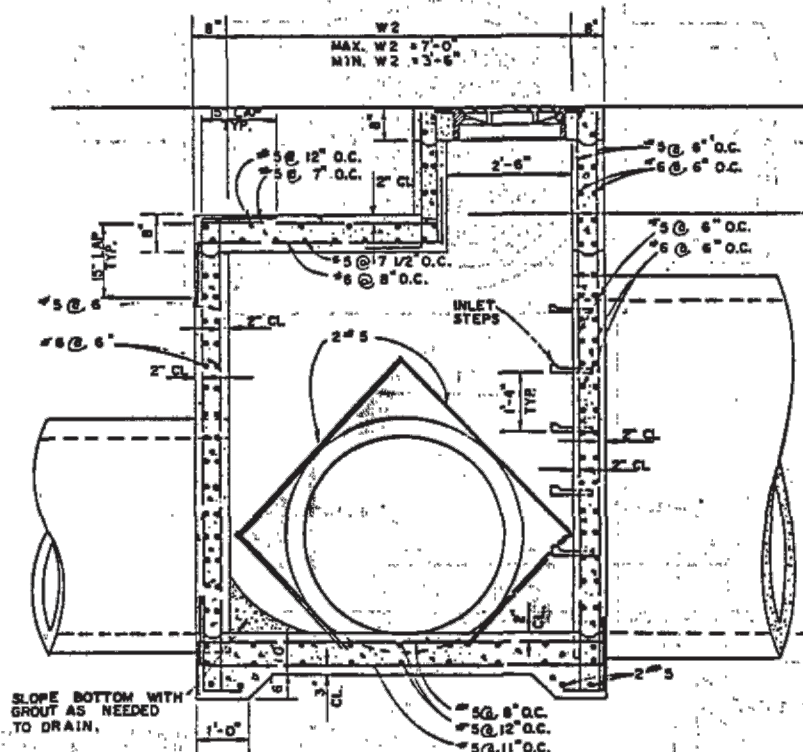


REDSTONE GATEWAY - PACKAGE 1E
RIDEOUT ROAD INTERIM IMPROVEMENTS
CITY OF HUNTSVILLE
HUNTSVILLE, ALABAMA

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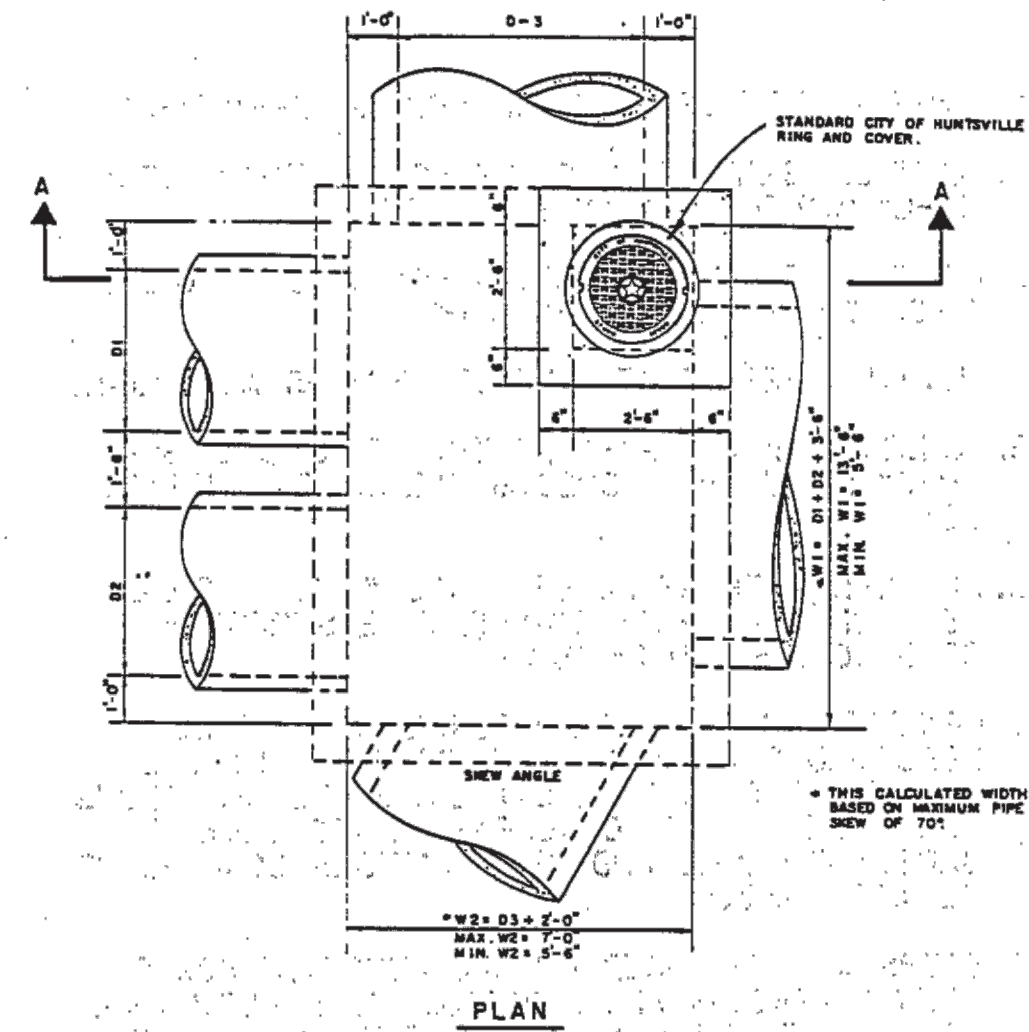
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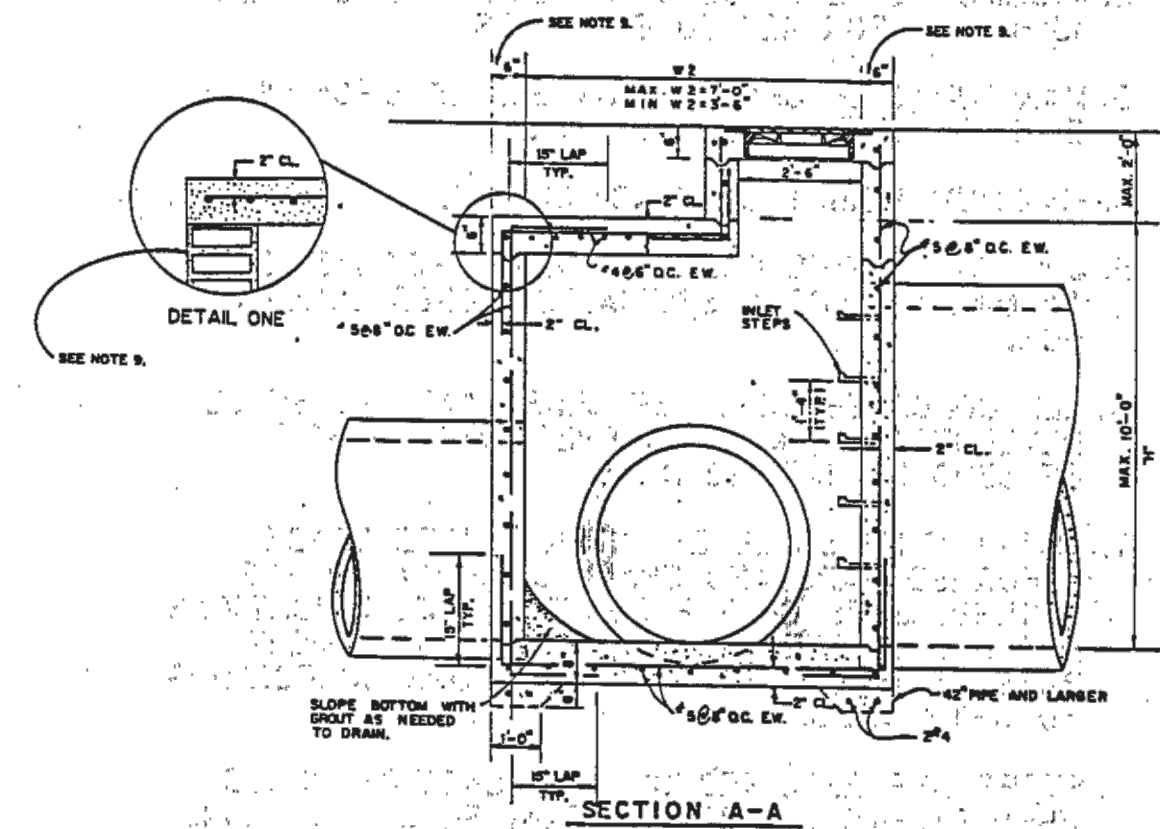
SECTION: A-A

REVISONS			CITY OF HUNTSVILLE	
DESCRIPTION	NAME	DATE	JUNCTION BOX FOR 27" TO 60" PIPES TRAFFIC TYPE	
DIRECTOR		DATE:	ENGINEER OF PUBLIC WORKS CITY OF HUNTSVILLE, ALABAMA	
			DR-141B DRAWING NO.	



PLAN

REVISIONS DESCRIPTION NAME DATE			CITY OF HUNTSVILLE JUNCTION BOX (27"-60" PIPES) DETAIL NON-TRAFFIC TYPE	
DIRECTOR DATE			ENGINEER OF PUBLIC WORKS CITY OF HUNTSVILLE, ALABAMA DR-143A DRAWING NO.	



SECTION A-A

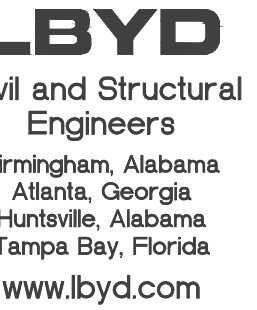
REVISED			CITY OF HUNTSVILLE	
DESCRIPTION	NAME	DATE	JUNCTION BOX (27"-60" PIPES) DETAIL NON-TRAFFIC TYPE	
DIRECTOR		DATE	ENGINEER OF PUBLIC WORKS CITY OF HUNTSVILLE, ALABAMA	DR-143B DRAWING NO.

1. MINIMUM SIZE OF JUNCTION BOX IS 2'-6"x2'-6".
2. MAXIMUM SIZE OF JUNCTION BOX IS 7'-0" (W2)x 13'-6" (W1) FOR 42" TO 60" PIPES
3. MAXIMUM SIZE OF JUNCTION BOX IS 5'-0" (W2)x 9'-6" (W1) FOR 15" TO 36" PIPES
4. MAXIMUM HEIGHT OF JUNCTION BOX IS AS SHOWN.
5. JUNCTION BOXES GREATER THAN 7'-6" x13'-6"x 12'-0" SHALL BE A SPECIAL DESIGN JUNCTION BOX.
6. ALL CONCRETE SHALL BE CLASS "A" AND SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH OF 3500 P.S.I. IN 28 DAYS.
- * 7. REINFORCING SHALL BE INTERMEDIATE-GRADE DEFORMED BARS- AND SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR BILLET STEEL CONCRETE REINFORCEMENT BARS, ASTM "A-15 AND DEFORMATIONS CONFORMING TO ASTM A-305.
8. STEPS ARE REQUIRED ON ALL JUNCTION BOXES WHEN DIMENSION FROM BOTTOM SLAB FLOW LINE TO TOP OF TOP SLAB IS GREATER THAN 4'-0".
9. BRICK CONSTRUCTION - WALL THICKNESS WILL BE 8" BRICK WHEN "H" IS LESS THAN 5'-0" AND 12" BRICK WHEN "H" IS MORE THAN 5'-0". 1/2" MORTAR ON BOTH SIDES.

* REINFORCEMENT SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR DEFORMED AND PLAIN BILLET STEEL BARS FOR CONCRETE REINFORCEMENT (ASTM A 615)

REVISIONS			CITY OF HUNTSVILLE	
DESCRIPTION	NAME	DATE	GENERAL NOTES FOR	
			NON-TRAFFIC TYPE JUNCTION BOXES	
DIRECTOR		DATE	ENGINEER OF PUBLIC WORKS CITY OF HUNTSVILLE, ALABAMA	DR-143C DRAWING NO.

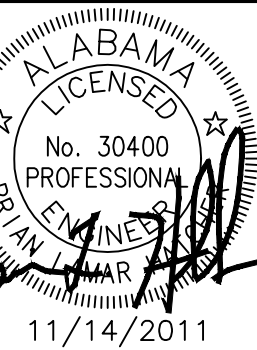
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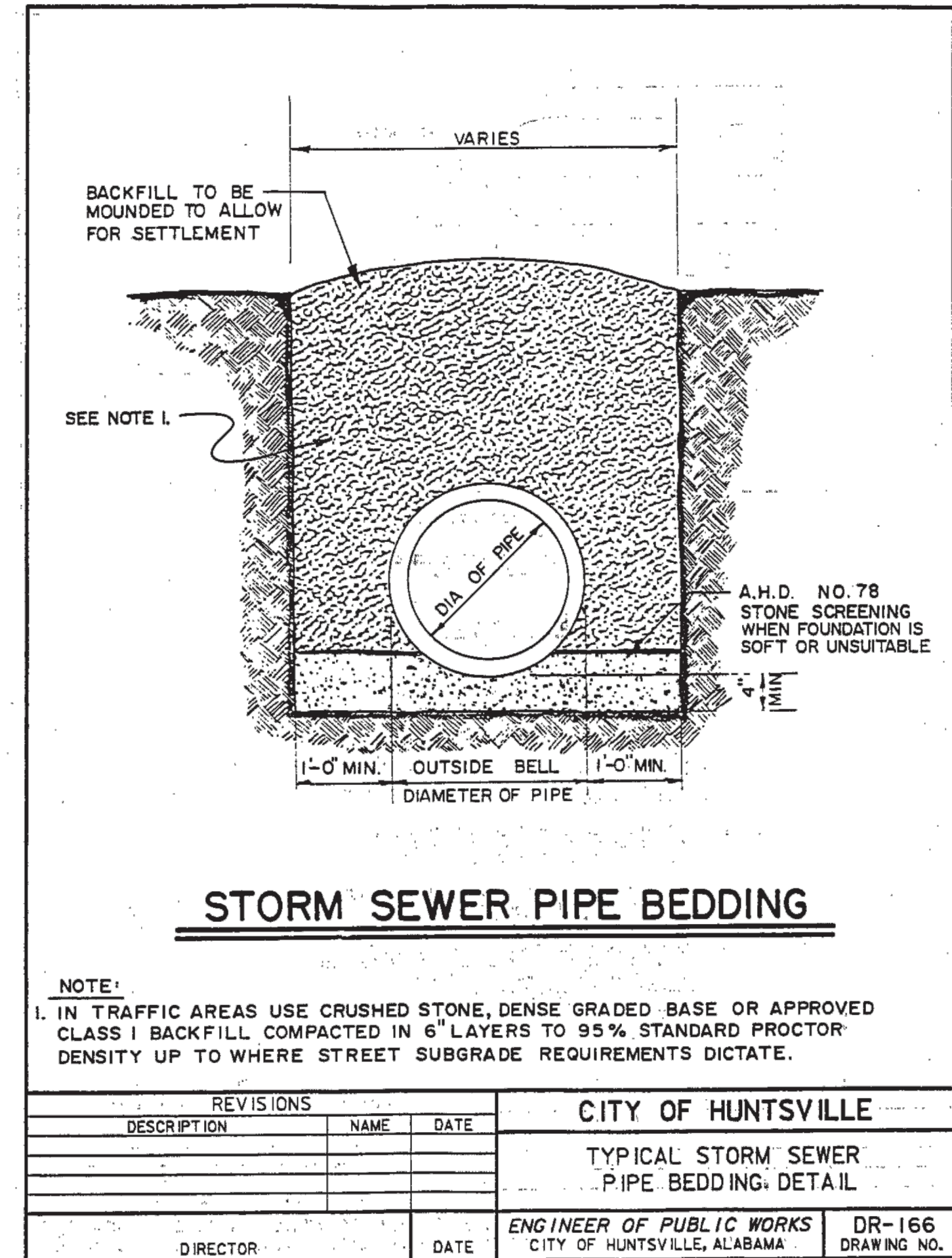
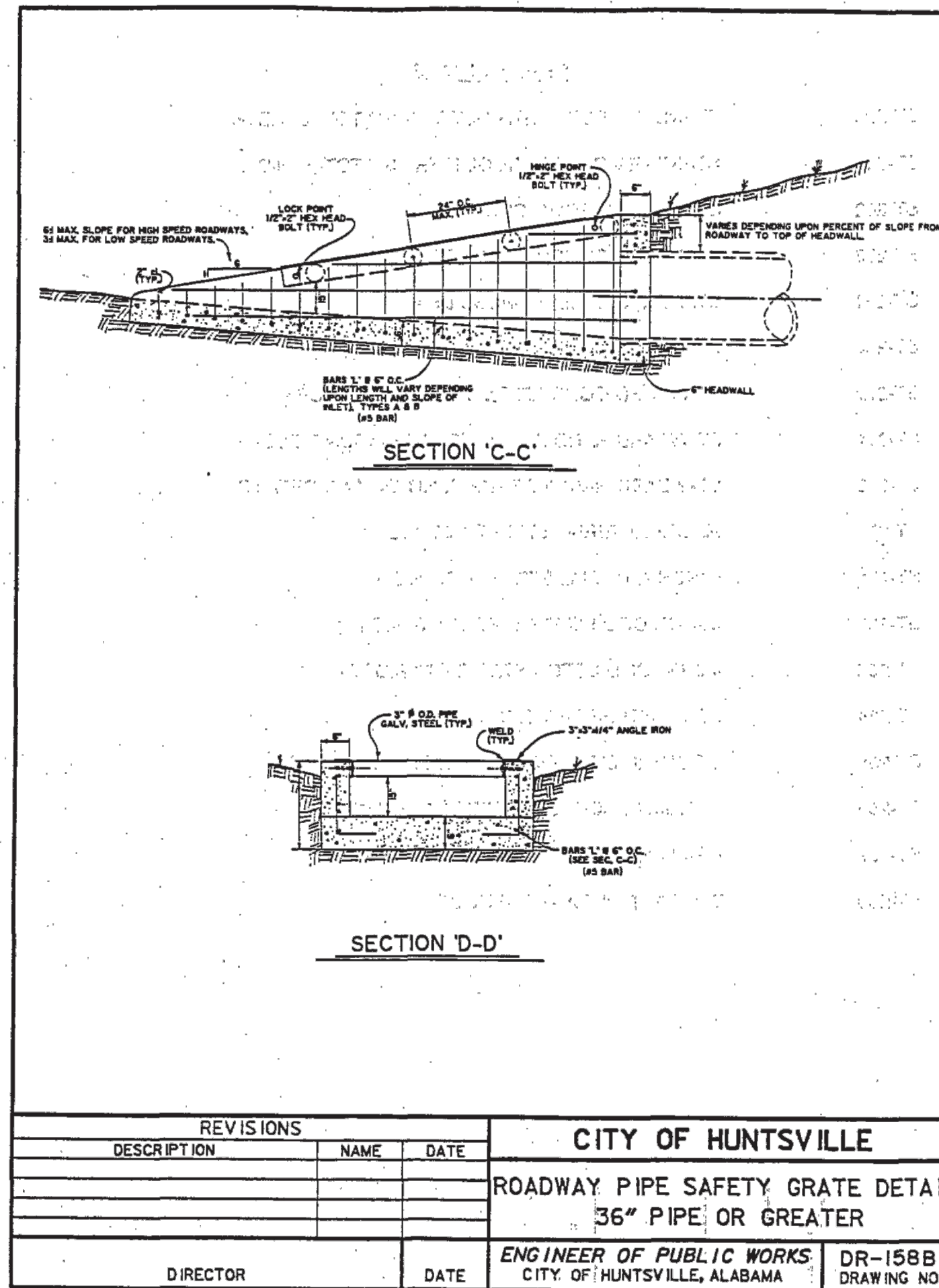


REDSTONE GATEWAY - PACKAGE 1E
RIDEOUT ROAD INTERIM IMPROVEMENTS
CITY OF HUNTSVILLE
HUNTSVILLE, ALABAMA

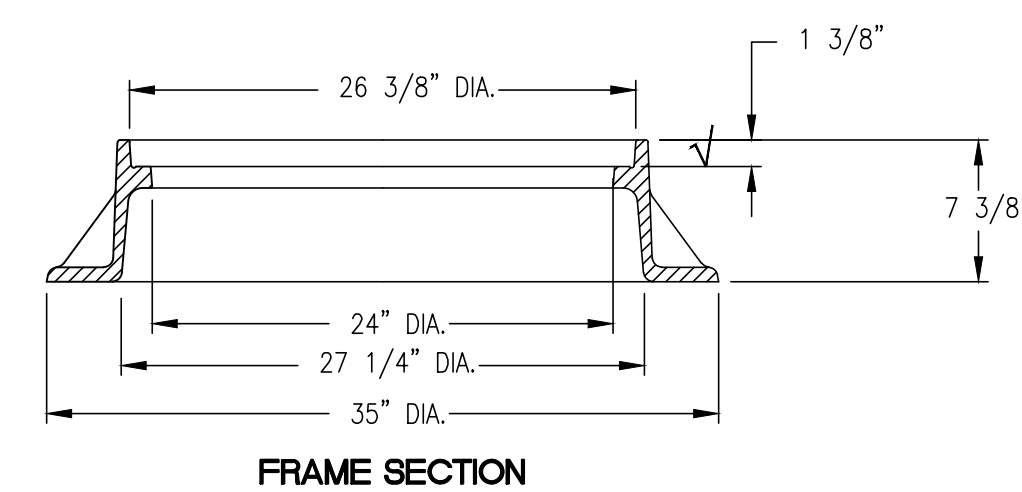
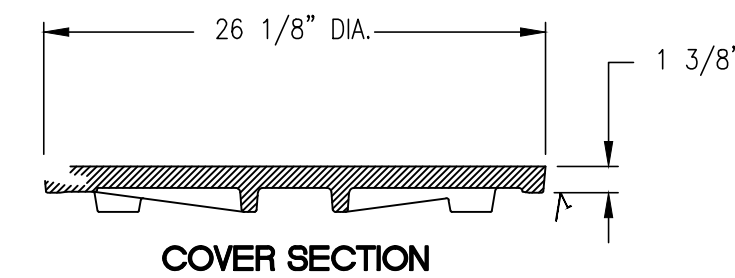
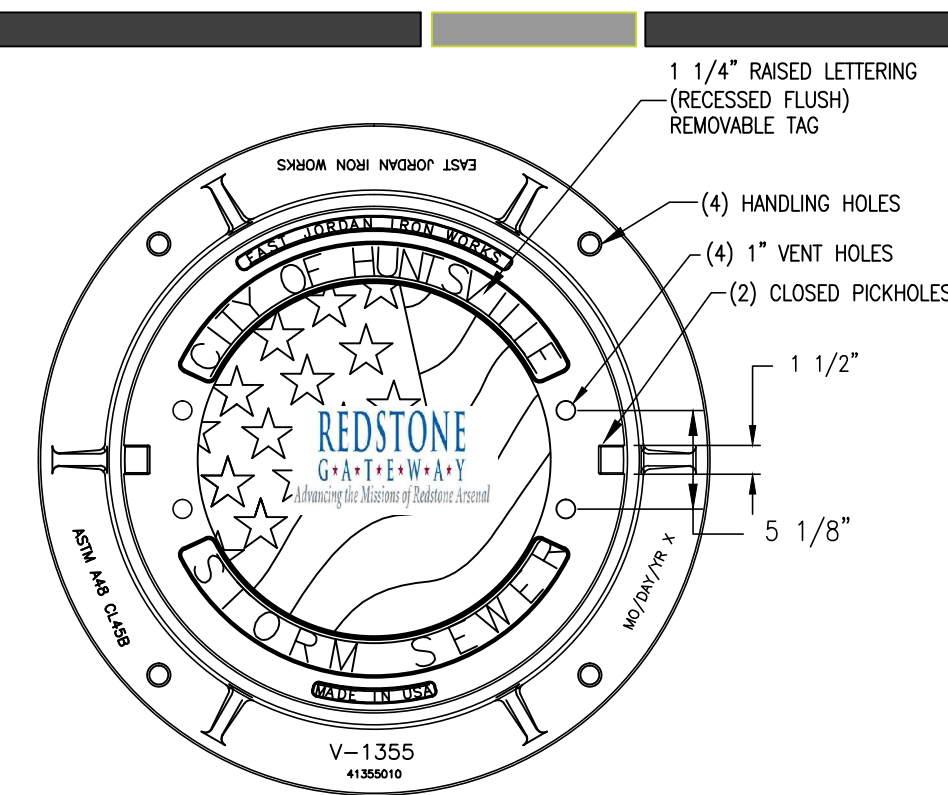
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C12.3

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V-1355 ASSEMBLY



* OR APPROVED EQUAL - CONTRACTOR
MUST SUBMITT AN EQUAL SHOP DRAWING
PRIOR TO ANY ORDERING OR FABRICATION

PRODUCT NUMBER

41355046A01

DESIGN FEATURES

MATERIALS

COVER-GRAY IRON
ASTM A48 CL35B
FRAME-GRAY IRON
ASTM A48 CL35B

DESIGN LOAD
HEAVY DUTY

COATING

COATING
UNDIPPED

OPEN AREA
N/A

√ DESIGNATES MACHINE SURFACE

REFERENCE INFORMATION

41355046
41355010

DRAWING DETAILS

ORIGINAL DRAWING: SMM 01/06/11
REVISED BY: SMM 02/01/11

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